Diabetes and pregnancy. Akush. i gin. 34 no.6:6-11 N-D '58. (MIRA 12:1)

1. Iz otdela patologii beremennykh (zav. - dots. N.A. Panchenko)
Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy medibiny imeni akad. N.D. Strushesko.

(DIABETES MELLITES, in pregn.

progn. (Rus.))

(PREMMANCY, in various dia.

diabetes mellitus, progn. (Rus.))

EWT(m)/EWP(j) L 42885-66

ACC NR. AP6020387 (A) SOURCE CODE: UR/0192/66/007/001/0130/0131

AUTHOR: Belyayeva, K. F.; Poray-Koshits, M. A.; Mitrofanova, N. D.; Martynenko, L. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: X-ray structural study of neodymium nitrilotriacetate trihydrate

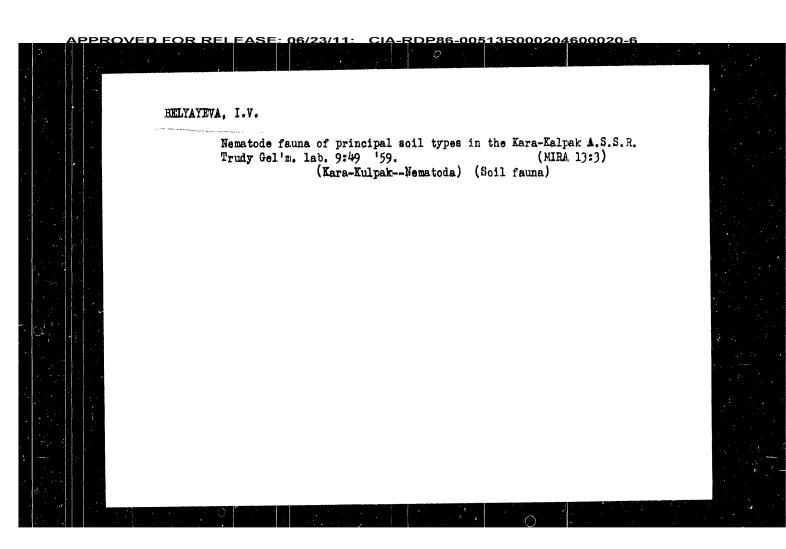
SOURCE: Zhurnal strukturnoy khimii, v. 7, no. 1, 1966, 130-131

TOPIC TAGS: neodymium compound, nitrogen compound, acetate, crystal structure analysis, electron density, x ray analysis

ABSTRACT: Data are presented on the lattice parameters of GdX.4H2O and ErX.4H2O (X = acid residue of nitriloacetic acid (HOOCCH2)3N), and preliminary data on the structure of one of the two modifications of NdX-3H2O (the so-called low-temperature modification, i. e., the trihydrate). $GdX^{*}4H_{2}0$ crystals are colorless, well-faceted hexagonal pyramids. The Laue symmetry class is $6/mm = D_{6h}$, the pycnometric density 2.31 g/cm³, and the lattice parameters a = 10.3, c > 30 Å. ErX $^{*}4H_{2}0$ crystals belong to the rhombic system and are in the form of very fine rhombic prisms. The lattice parameters a = 12.1, b = 21.5, c = 9.0 A, d_{calc} = 2.40 g/cm³. Space groups Pna2₁ and Pnam are possible, and N = 4. The pale-lilac, well-faceted NdX·3H₂O crystals belong to the rhombic system: a = 13.21, b = 20.88, c = 8.12 A, d_{meas} = 2.27, d_{calc} = 2.29 g/cm³, N = 8. Space group P_{bca}. The atomic coordinates were determined from the

1/2 Card

UDC: 538.736.4



NPPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

A simplified equipment for ...

S/115/62/000/011/005/008 E194/E155

potentiometer is used, four couples can be checked at once, the other two positions being used to record the output of the reference couple and a zero signal. Recordings are made every 5 seconds, the next couple being connected 1 second after the recording is made; thus four seconds elapse before the next reading, which is sufficient to establish equilibrium. The furnace is supplied through a motorised autotransformer which covers the voltage range in half an hour. It is best to calibrate whilst the furnace is cooling, and so the voltage is reduced from maximum to zero over a period of 30 minutes during which time the temperature falls to about 600-700 °C. With direct measurement of the difference in e.m.f. it is recommended to calibrate no more than four thermocouples at once or no more than two thermocouples if comparison is made by electrodes. The maximum error of calibration of a platinum-rhodium-platinum thermocouple on the equipment is ± 5 microvolts in the range 300-1200 °C. The method of working out the records is explained. There are 3 figures.

Card 2/2

S/115/62/000/011/005/008 E194/E135

AUTHORS: Pak, Vanbo, Krinskiy, Yu.P., and Belyayeva, 1.S.

TITLE: A simplified equipment for calibrating noble metal

thermocouples under dynamic conditions

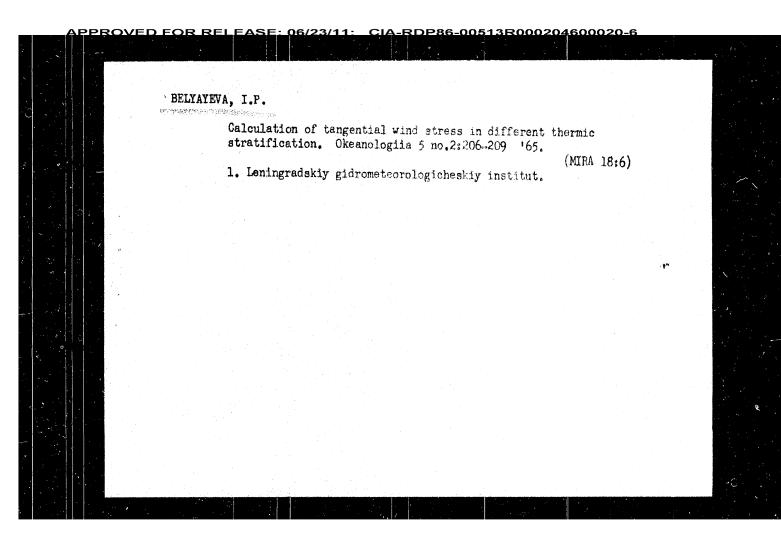
PERIODICAL: lzmeritel'naya tekhnika, no.11, 1962, 27-30

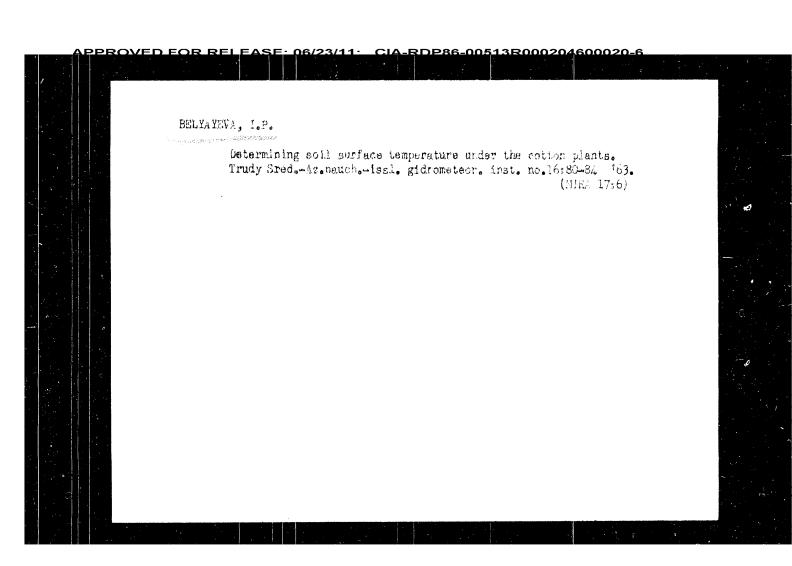
TEXT: The HUMMIN (NGIMIP) has developed a simple and reliable equipment for calibrating thermocouples under dynamic conditions. It uses a normal single-coordinate recording potentiometer; the thermocouples are connected by a standard selector switch, and a low-inertia 2 kW furnace is used. It is possible to measure the difference not only between the thermocouples under test and the reference thermocouple, but also the difference of e.m.f. between electrodes of the same material, and from these results the e.m.f. between platinum and platinum/rhodium thermocouples may be calculated. A schematic diagram of the equipment is given and the principles of operation are fully described. The only non-standard part of the equipment is a changeover switch vibrating at a frequency of 80 c/s and switching two capacitors in the circuit of the thermocouple under test. If a six-position recording Card 1/2

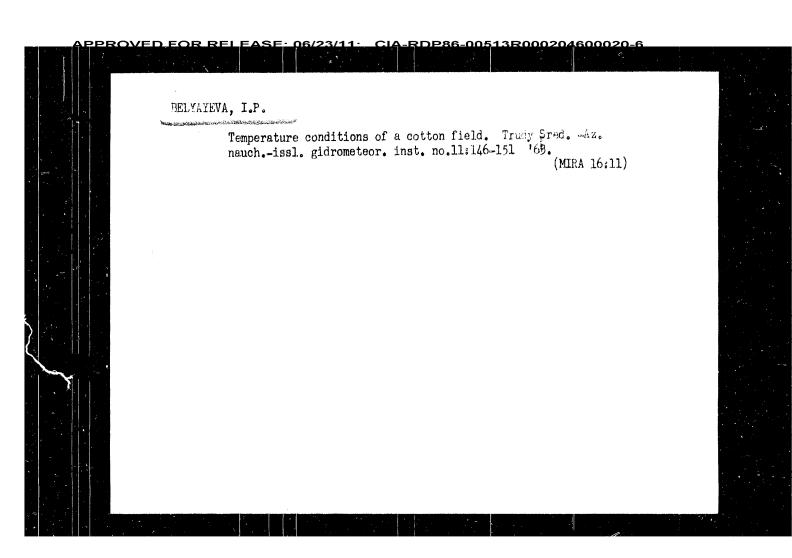
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E 188 COURS: Researchegiva i giùrniogiya, no. 8, 1965, 7-12	
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APPROVED FOR REL FASE: 06/23/11: CIA-RDP86-00513R0002204600020-6

S/166/62/000/004/005/010

SUBMITTED: April 18, 1962

Card 3/3

NPPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

Calculation of the daily totals...

S/166/62/000/004/005/010 B112/B186

s is the duration of sunshine in hrs according to the heliograph; a and care the coefficients represented by the expressions

$$c = \cos^2(\alpha/2) + \sin^2(\alpha/2)(\Sigma R_h/\Sigma D_h)$$
 (4)

and
$$a = \pm ((\sum_{acc-incl})^{\sum_{acc-incl}})_{clear} - c)/s_{poss}$$
 (5)

 $(\Sigma R_h/\Sigma D_h)$ is the albedo of the active surface on a cloudy day, $(\Sigma Q_{acc-incl}/\Sigma Q_{acc-h})_{clear}$ is the relative daily total of accumulated radiation on an inclined surface in the course of a clear day, s_{pQSS}^{\dagger} is the possible duration of sunshine during the day). The daily total of radiation accumulated on an inclined surface during a cloudy day can be calculated from the formula $Q_{acc-incl} = Q_{acc-h}(c \pm as)$, where s is the duration of solar irradiation in hrs according to the heliograph whilst a and c are coefficients computed by (4) and (5). There are 2 figures and 6 tables.

ASSOCIATION: Sredneaziatskiy n.-i. gidrometeorologicheskiy institut (Central Asian Hydrometeorological Scientific Research Card 2/3 Institute)

HUES? \$/166/62/000/004/005/010 B112/B186

3.5150

AUTHOR:

Belyayeva, I. P.

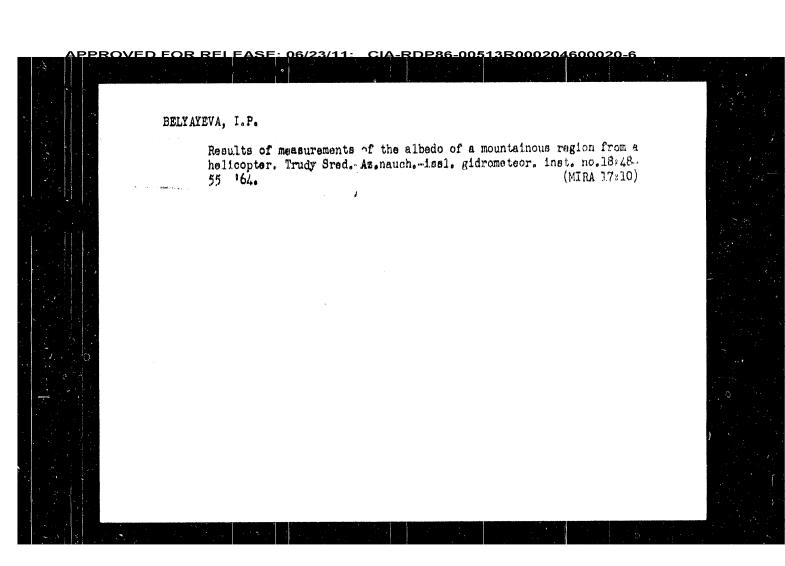
TITLE:

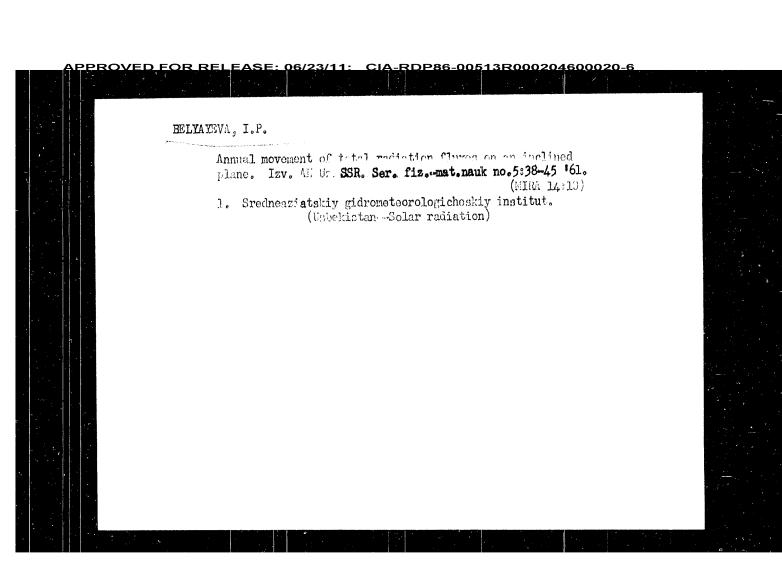
Calculation of the daily totals of accumulated (meteor-term) radiation striking inclined surfaces on cloudy days

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fizikomatematicheskikh nauk, no. 4, 1962, 38 - 46

TEXT: The effect of cloudiness on the relative daily totals $\Sigma Q_{acc-incl}/\Sigma Q_{acc-h}$ where the subscripts denote "inclined" and "horizontal" respectively is especially marked in winter, spring, and fall, because these are the seasons of maximum difference between the incidence of radiation on inclined and on horizontal surfaces. The relative daily totals depend not only on the quantity but also on the shapes of the clouds which have prevailed during the day. The effect of low clouds is especially strong when more than half the sky is covered with clouds. The daily total of radiation accumulated on an inclined surface during cloudy day can be calculated from the formula $\sum_{ac-incl} \sum_{acc-i} (c + as)$. Here

Card 1/3





YAKUBOVICH, A.Ya.; SERGEYEV, A.P.; BELYAYEVA, 1.N. Direct fluorovinylation. Dokl. AN SSSR 161 no.6:1362-1364 Ap 465. (MIRA 18:5) 1. Submitted October 26, 1964.

APPROVED FOR RELEASE: 06/23/11; CIA-RDP86-00513R000204600020-6

Flows of reflected ...

S/169/62/000/001/041/083 D228/D302

diation, incident during the day on eastern and western slopes, does not depend on slope steepness (when the steepness does not exceed 40°). It is established that the magnitude of reflected radiation entering upon slopes with little steepness may be disregarded when the ground has a reflecting capacity of up to 34%. In the case of steeper slopes (more than 20°) isotropically approximated formulas are proposed for calculating the daily radiation totals. / Abstractor's note: Complete translation.

Card 2/2

S/169/62/000/001/041/083 D228/D302

AUTHOR:

Belyayeva, I. P.

TITLE:

Flows of reflected and scattered radiation on slopes

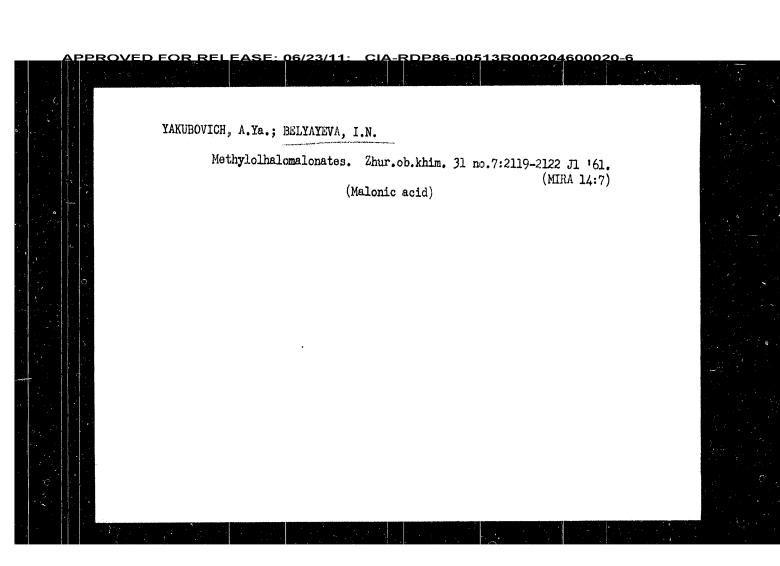
PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 1, 1962, 15, abstract 1B120 (Tr. Gl. geofiz. observ., no. 107,1961,

105-111)

TEXT: The results of measuring reflected and scattered radiation upon slopes on clear days in September 1959 in the vicinity of the Golodnaya Steppe are considered; these were carried out by means of a thermoelectric pyranometer, fastened to a theodolite, with a screen and special apparatus for shading the reception part from the influence of radiation reflected by a horizontal surface (a ring). The device slopes at different angles to the horizon and is oriented according to four main bearings with the aim of ascertaining the patterns of slope irradiation. It is noted that on clear days direct and scattered radiation plays a leading role in the incidence of short-wave radiation upon a slope. Scattered ra-

Card 1/2



<u> PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6</u>

82678

Synthesis of Vinyl Monomers. 11. The Synthesis S/079/60/030/008/001/008 of α -Chlorohydroacrylates and α -Chloroacrylates B004/B064

by heating I with sodium bisulfate. Phenyl- α -chloroacrylate (6) by addition of triethyl amine solved in benzene to phenyl- α , β -dichloropropionate solved in benzene, filtering off of the triethyl amine hydrochloride precipitate, distilling off of benzene and the excessive triethylamine, fractionating the residue in the presence of phenyl- β -naphthyl-amine (yield 49%). In 6 the authors found the refractive index n_D^{20} to be 1.5325. They consider this value to be more correct than that of 1.5808 given in Ref. 3. There are 4 non-Soviet references.

SUBMITTED: July 31, 1959

Card 2/2

BELYAYEVA, I.N.

82678

5.3831

5/079/60/030/008/001/008 B004/B064

(1)

AUTHORS:

Yakubovich, A. Ya., Bogoslovskiy, N. A., Pravova, Ye. P.,

Belyayeva, I. N., Razumovskiy, V. V.

TITLE:

Synthesis of Vinyl Monomers. 11. The Synthesis of

 α -Chlorohydroacrylates and α -Chloroacrylates q

PERIODICAL:

Zhurnal obshchey khimii, 1960, Vol. 30, No. 8,

pp. 2496 - 2498

TEXT: The authors report on the following syntheses: α -chloro- β -hydroxy propionitrile (I) from aqueous solution of acrylonitrile by introduction of chlorine gas at 16°C. The compound was extracted with ether. Yield: 38.5%. α-chloro-β-acetoxy propionitrile (2) from I by heating with acetic anhydride and sodium acetate over the water bath (yield 55.8%). Methyl- α -chloro- β -hydroxy propionate (3) by chlorinating methyl acrylate (yield 23.5%). Methyl- α -chloroacrylate (4) a) by dropping 3 into a mixture of E₂SO₄ and Cu₂Cl₂ (yield 74%) heated to 125-130°C; b) by dropping 3 into a mixture of P_2O_5 and Cu_2Cl_2 (yield 64%). α -chloroacrylonitrile (5)

Card 1/2

The Synthesis of Vinyl Monomers. 79-28 3-25/61
III. Note on the Synthesis of Compounds With a Carbonyl Group.

There are 12 references, 4 of which are Soviet
SUBMITTED: January 24, 1957

Card 3/3

The Court has the court

The Synthesis of Vinyl Monomers. 79-28-3-25/61 III. Note on the Synthesis of Compounds With a Carbonyl Group

that the reaction with the hydrochlorine of diethylamine takes place considerably slower and that the yield of the hydrochlorine of dialkylaminopropriophenon is smaller than with the use of the hydrochlorine of dimethylamine (63 to 75,5 % correspondingly). Phenylisopropyleneketone was synthetized from the hydrochlorine of dimethylamino. methylpropriophenon. It turned out that propriophenon and paraformaldehyde do not react with the hydrochlorine of diethylamine. According to Mannich also the 2,5-dichlorophenylketone was synthetized anew. The 2,5 dichloroacetophenon and its paraform react only little with the hydrochlorine of diethylamine, easier, however, with that of dimethylamine. The ketone obtained here easily polymerizes in the distillation, even in vacuo and in the presence of an inhibitor. In publications referring to the most simple unsaturated aldehydes, the acroleine and methacroleine, only patent data are known on the synthesis of the oximes of these aldehydes. The authors synthetized in a new way the oxime of macroleine by reaction of the meta-macroleine with hydroxylamine (yield 65 %).

Card 2/3

AUTHORS: Yakubovich, A. Ya., Razumovskiy, V. V., 79-28-3-25/61 Belyayeva, I. N. TITLE: The Synthesis of Vinyl Monomers (Sintezy vinilovykh monomerov). III. Note on the Synthesis of Compounds With a Carbonyl Group (III. Zamechaniye k sintezu soyedineniy s karbonil'noy gruppoy) PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 3, pp. 680-682 (USSR) ABSTRACT: There are hints that in certain cases an easy course of the Mannichs reaction depends on the nature of the used base, Thus Levy and Nisbet (ref. 1) noted that 2-acetylfurfuran and formaldehyde enter intractions with salts of dimethylamine and dipropylamine but never with a salt of disthylamine. Mannich and Heilner (ref. 2) described the synthesis of the phenylvinylketone when using the hydrochloride of dimethylamine. Joung and Roberts obtained the same ketone with the hydrochlorine of diethylamine. The authors synthetized the phenylvinylketone with the same salts; they found however, Card 1/3

L 45720-66

ACC NR: AP6025698

ance of the liquid phase, indicating that the reactions in these systems cannot be classified as solid-phase reactions. It was found that the equilibrium in the system 32nRiO₂ + Po₃ (PQ₄)₂ = 3PoTiO₃ + Zn₃ (PQ₄)₂ = 4 to we temperatures is displaced toward the formation of zinc titanate and lead phosphate, and at 800 °C to the side of lead titanate and zinc phosphate. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 30Jul65/ ORIG REF: 003/ OTH REF: 001

L 45/20-66. EWT(m)/T/EWP(t)/ETT TUP(c) ID

ACC NR: AP6025698 SOURCE CODE: UR/0078/66/011/005/1183/1188

AUTHOR: Belyayev, I. N.; Aver yanova, L. N.; Belyayeva, I. I.

ORG: none

TITIE: Solid-phase reactions of divalent metal titenates

SOURCE: Zhurnal neorganichookoy khimii, v. 11, no. 5, 1966, 1183-1188

TOPIC TAGS: titanate, sulfate, phosphate

ABSTRACT: X-ray diffraction analysis was used to study the solid-phase reactions in the systems MeTiO₃-PoSO₄ and MeTiO₃-Po₃(PO₄)₂, constituting diagonal sections of the ternary reciprocal systems Me,Po || TiO₃,SO₄(PO₄), where Me = Mg, Ca, Sr, Ba, Zn, Cd, in the 600-1000 °C range. It was found that in these ternary systems, where Me = Ca, Sr, Ba, and also in the Mg,Po || TiO₃,PO₄ system at 700-1000 °C, in the course of 20 hr, a substantial displacement of the equilibria MeTiO₃ + PoSO₄(PO₄) \rightleftharpoons PoTiO₃ + MeSO₄(PO₄) takes place to the right, i. e., to the side of a pair of salts in which a cation with an 18+2 electron shell (Pb) combines with an anion containing an atom with an unfilled d subshell (Ti). Thus, all the indicated reactions are irreversible and reciprocal with stable salt pairs PhTiO₃ + MeSO₄(PO₄). Because of the presence of the exchange product (lead titanate) and original titanate (MeTiO₃) in the calcined samples, the systems Zn,Pb || TiO₃,SO₄, Cd,Pb || TiO₃, and also Mg,Pb || TiO₃,SO₄ are irreversible and reciprocal. The appearance of the exchange product in them coincides with the appearance

Card 1/2

UDC: 546.824:541.124-16

L 2287-66 ACCESSION NR: AP5022273 2PbHf03.PbW04 is formed. The compounds observed have pyrochlore-type crystal lattices, and the unit cells are expressed by the formulas Pb2(Sn1.5W0.5)06.5 and Pb2(Hf1.33W0.66)06.6 with constant A equal to 10.52 and 10.66 A, respectively. In the "PbSn03" - PbMo04 system at 600-900C and compacting pressure (preceding the firing) of 50 kg/cm2 and in the PbRgO3 - PbMoO4 system at 8000 and a compacting pressure of 100 kg/cm2, no chemical reactions are observed. Orig. art. has: 1 figure and 3 tables. ASSOCIATION: Rostovskiy-na-Donu gosudaratvennyy universitet (Rostov-on-Don State University) SUBMITTED: 24Mar65 ENCL: 00 SUB CODE: IC, &C NO REF SOV: 009 OTHER: 003

EWP(e)/EWT(m)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)IJP(c) JD/JG ACCESSION NR: AP5022273 UR/0363/65/001/007/1184/1188 541.123.2 AUTHOR: Belyayev, I. N.; Aver'yanova, L. N.; Belyayeva, I. I. TITLE: X-ray phase study of the systems "PbSnO3" - PbWO4, "PbSnO3" - PbMoO4, PbHf03 - PbW04, and PbHf03 - PbMo04. SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, TOPIC TAGS: lead compound, tin compound, tungsten compound, molybdenum compound, hafnium compound, ferroelectric material ABSTRACT: The paper continues a study of the nature of solid-state reactions in systems involving ferroelectrics and antiferroelectrics. The pressed and sintered samples were analyzed by X-ray powder techniques. It was found that in the "PbSnO3" - PbWO4 system (where "PbSnO3" is a mixture of 50 mole % PbO and 50 mole % SnO₂), the compound 3PbSnO₃·PbWO₄ is formed at 700-900C. At 900C, the compound begins to decompose into the original components. In the PbHfO3 - PbWO4 system, if the pressing preceding the sintering is carried out under a pressure of no less than 100 kg/cm2 and the firing temperature is 800-1000C, the compound Card 1/2

BELYAYEV, I.N.; AVER'YANOVA, I.N.; BELYAYEVA, I.I. X-ray and dilatometric studies of the systems PhZrC3 - PBWO4 (MoO4). Tav. AN SSSR. Neorg. mat. 1 no.3:392-394 Mr 165. (MIRA 18:6) 1. Rostovskiy gosudarstvennyy universitet.

ACCESSION NR: AP4024996

ASSOCIATION: Rostovskiy-na-Donu gosudarstvenny*y universitet (Rostov-on-Don State University)

SUBMITTED: 26Jun63 DATE ACQ: 16Apr64 ENCL: 02

SUB CODE: PH NO REF SOV: 002 OTHER: 003

ROVED FOR RELEASE: 05/23/11: CIA-RDP86-00513R00020460002046

ACCESSION NR: AP4024996

\$/0070/64/009/002/0280/0281

AUTHORS: Belyayev, I. N.; Aver'yanova, L. N.; Belyayeva, I. I.

TITLE: New compounds with the structure of pyrochlore

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 280-281

TOPIC TAGS: pyrochlore, lead, cadmium, titanium, zirconium, tin, tungsten, solid phase, cubic structure, defect, oxygen, x ray characteristic

ABSTRACT: The authors have presented data on new compounds having the general formula $A_2(B_{2-x},B_x^!)O_{6+x}$, where A represents ions of Pb and Cd; B ions of Ti, Zr, and Sn; and B' the hexavalent ion of W. These compounds were synthesized by solid-phase reactions. The x-ray characteristics of hkl lines are shown in Table 1 on the Enclosures. From these it may be seen that all the synthesized compounds have the cubic structure of pyrochlore with defects about oxygen. The authors point out that attempts to replace the W ion by Mo and the Pb or Cd ion by other bivalent metals have not yet been successful. Orig. art. has: 2 tables.

Cord 1/12

NPPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

307/69-21-4-2/22

Precipitation of Artificial Fogs

of comparison, curve 2 shows the precipitation of red phosphorus. The phosphorus was burnt in a small electric furnace, which had been substituted to the radioactive source. On the whole, the experiments have shown that the treatment of common moist air with ionizing rays increases the number and size of the particles of its disperse phase. As a result of this the formation of fog can be observed. Fog formation and precipitation during ray treatment continue without interruption and with constant speed. The quantity of precipitated fog and its dispersion are dependent on the intensity and duration of ray treatment. There is 1 set of photographs, 2 diagrams, 1 graph and 3 Soviet references.

ASSOCIATION:

Institut goryuchikh iskopayemykh AN SSSR, Moskva (Institute of Mineral Fuels of the AS USSR, Moscow)

SUBMITTED:

5 February, 1958.

Card 3/3

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

SOV/69-21-4-8/22

Precipitation of Artificial Fogs

of treatment with & and & particles, become more a careful dispersed in dependence on the duration of the freetment. Photographs 7-10 (treatment with y -quenta Co 60) show that the dispersion of the precipitation depends on the intensity of ray treatment. The higher the incensity the greater the number of droplets and their size. In order to investigate the precipitation process also with regard to time, the authors developed a quartz microbal moe suitable for this parpuse. The balance was put into a cylindrical glass vessel (volume= 4.4 1). The measurements were carried out with a hordrontally installed microscope. Prior to the introduction of a radioactive source (d. -particles) no deformation of the quartz thread with the plate for the precipitate could be observed. After introduction of the source fog formed and precipitated on the plate. The results of the experiments are illustrated by a graph (Figure 4). Curve I shows that the fog precipitates continuously during the ray treatment of the air. For the sake

Card 2/3

507/69-21-4-2/22 . 5(4) Belyayeva, I.I. and Smirnov, N.S. AUTHOR: Precipitation of Artificial Fogs TITLE: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 4, pp 385-387 (USSR) PERIODICAL: The authors report on the results of an investigation of the ABSTRACT: precipitation of artificial fogs. The article continues former publications of the authors (references 1 and 2), in which they describe the formation of these fogs by means of treatment of common air (relative humidity not exceeding 100%) with ionizing rays. The precipitation was carried out with the aid of of and B particles and p-quanta Co (0. For the first series of experiements, the authors used the device described in figure 2. For the second and third series, eylindrical glass vessels (volume=4.4 1) were used. With the introduction of a radioactive source, fog development could be observed. Fog droplets precipitated on small thin glass plates. The precipitation was microphotographed (Figure 1). Photographs 1-6 show that predipidation formed as a result Card 1/3

PROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

BELYAYEVA, I.I.

"The Effect of Air Ionization on the Disperse Phase of Aero-colloids," by I. I. Belyayeva, A. Ye. Mikirov, and N. S. Smirnov, Geophysics Institute Academy of Sciences USSR, Moscow Kolloidnyy Zhurnal, Vol 19, No 1, Jan/Feb 57, pp 24-26

The formation of aerocolloids (fogs) as the result of bombarding air of 100% humidity with alpha-particles has been described. The scattering capacity of the fogs has been measured and it has been shown to depend upon the radioactivity of the source and the duration of the irradiation. The stability of the fogs has been measured using an optical method.

Increasing the ionization of air (the dispersion medium)increases the concentration of submicroscopic particles (condensation nuclei) and the ultramicroscopic fraction of the disperse phase of the aerocolloid and leads to the formation of visible fog. The rate of the process of formation of similar aerocolloids depends on the activity of the source of ionizing radiation, and hence on the rate of formation and concentration of ions of the dispersion medium. Similar fogs are stable and increase the light scattering capacity by 12-40%, depending on the activity of the source and the duration of irradiation. (U)

54M.13 45

KASHERININOV, G.O.; LEVINSKIY, M.I.; STANKEVICH, V.A.; KOVTUN, T.D.;

BELITATEVA, I.I.; POPOV, Ye.I.; SMIRNOV, N.S.; SHAKHTAKHTINSKIY,
M.G.; KULLITEV, A.A.

Brief reports. Zav.lab. no.11:1403-1404 '59. (MIRA 13:4)

1. Institut Gipronikel' (for Kasherininov). 2. Institut goryuchikh iskopayemykh (for Belyayeva, Popov Smirnov). 3. Institut
fizikli matematki Akademi nauk Azerbaydzhanskoy SSR (for
Shakhtakhtinskiy, Kullyav).

(Ghemical apparatus)

<u> APPROVED FOR RELEASE: 06/23/11: __CIA-RDP86-00513R000204600020-6</u>

X-ray phase analysis of...

S/078/62/007/006/023/024 B110/B144

pressed into tablets, and heated. Well-sintered refractory material was obtained from 50-75 mole% titanate, by annealing at 1000-1280°C for 4-15 hrs. A yPC-70-K-1 (URS-70-K-1) apparatus in PKA (RKD) chambers was used for the radio raphic analyses under unfiltered Fe and Cu-K radiation.

Results: Mixtures of the initial substances were found, but neither compounds nor solid solutions; this indicates the presence of simple, eutectic systems alone. There is 1 table.

SUBMITTED:

November 10, 1961

Card 2/2

\$/078/62/007/006/023/024 B110/B144

AUTHORS:

Belyayev, I. N., Aver'yanova, L. N., Belyayeva, I. I.

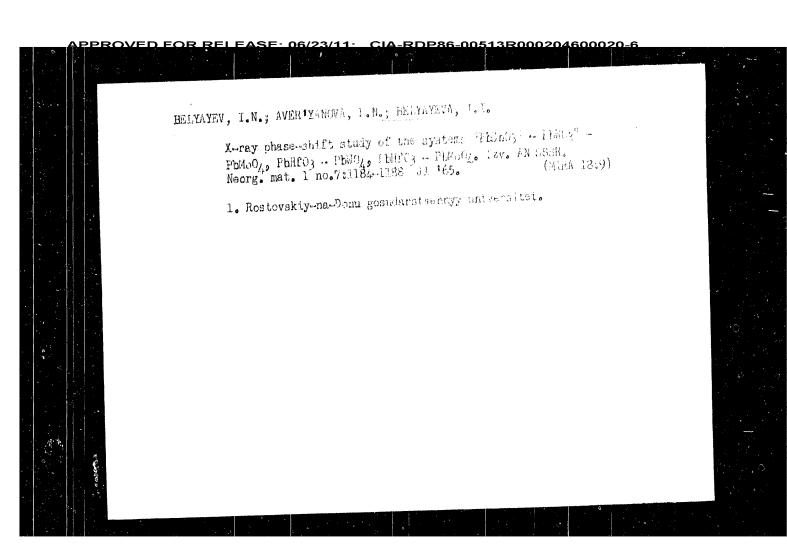
TITLE:

X-ray phase analysis of $MeTiO_3$ -Me *O_4 (MoO_4) systems

PERIODICAL:

Zhurnal neorganicheskoy khimii, v. 7, no. 6, 1962, 1476

TEXT: The systems MgTiO3-MgWO4, CaTiO3-CaWO4, SrTiO3-SrWO4, BaTiO3-BaWO4, ${\tt ZnTiO_3-ZnuO_4}, \ {\tt MgTiO_3-MgMoO_4}, \ {\tt CaTiO_3-CaMoO_4}, \ {\tt SrTiO_3-SrMoO_4}, \ {\tt BaTiO_3-BaMoO_4},$ and ZnTiO3-ZnMoO4 were subjected to qualitative radiographic phase analyses. MgTiO3 and ZnTiO3 were prepared from TiO2 and the corresponding metal oxides by sintering at 1280°C for 15 hrs; SrWO 4 was prepared from solutions of Sr acetate and Na2WO4; ZnWO4 from the oxides sintered at 1280°C for 15 hrs; $M_{\rm g} MoO_4$ and $Zn MoO_4$ from the corresponding oxides by sintering with MoO3 at 1000°C for 15 hrs; SrMoO4 from SrCO3 and MoO3; the other compounds were commercial products. These materials were ground, Card 1/2



ACC NR: AP7007081 the effective atmospheric depth of $200~{\rm g/cm^2}$, calculations must be carried out with greater statistical precision. When results of the theoretical calculations on characteristics of broad atmospheric showers at 1240 g/cm become available, the experimental data reported will be useful for the determination of the composition of primary cosmic radiation in the superhigh-energy range orig. art. has: 5 figures, 2 formulas and 1 table. (JPRS: 39,658) Card 2/2

ACC NR: AP7007081

SOURCE CODE: UR/0048/66/030/010/1685/1689

AUTHOR: Vernov, S. N.; Khristiansen, G. B.; Abrosimov, A. T.; Atrashkevich, V. B.; Belyayeva, I. F.; Vedeneyev, O. V.; Kulikov, G. B.; Nechin, Yu. A.; Solov'yeva, V. I.; Fomin, Yu. A.; Khrenov, B. A. ORG: none

TITLE: Phenomenological characteristics of broad atmospheric showers with a fixed number of Ac-mesons and electrons /Paper presented at the All-Union Conference on Cosmic Radiation Physics, Noscow, 15-20 Nov 1965/ SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 10, 1966, 1685-1689

TOPIC TAGS: mu meson, cosmic radiation

SUB CODE: 20

ABSTRACT: In an earlier work by Vernov et al (Izvestiya Akademii Mauk 555R, Seriya Fizicheskaya, 29, 1676, 1965), results obtained in a study at an installation of Moscow State University on broad atmospheric showers with zenith angles of 0-30° were reported. These results included the distribution of showers with a fixed number of electrons Ne with respect to the number of high-energy mesons Nu and the age parameter S, distribution of showers with a fixed Nu with respect to Ne and S, and the coefficients of the correlation between S and the fluxes of electrons and M-mesons. In the work reported in this instance, the same relations were determined for broad atmospheric showers with zenith angles of 30-450. The fluctuations of Nu, S, and Ne, observed for an effective atmospheric depth of 1240 g/cm², were the same as those for vertical showers established in the earlier work. To determine the differences due to an

Card 1/2

NPPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

L 25772-66 · -

ACC NR: AP6016380

at the observation level. An averaged function ρ_{n} (H) is plotted to determine the spatial distribution N_{n} of the muons, and, thus, the total number of these muons is determined. The distribution of N_{e} for a given N_{n} is evaluated on the basis of data on an e.a.s. with $N_{n} = (1-2)\cdot 10^{4}$. The experimental findings are found to be in satisfactory agreement with theory. Thus, on the basis of the complex whole of the experimental findings, it may be concluded that the composition of primary cosmic rays in the superhighenergy region apparently does not significantly differ from the composition in the low-energy region, and the findex of the primary energy spectrum is variable rather than constant. Orig. art. has:

SUB CODE: 20, CA / SURM DATE: none / ORIG REF: 009 / OTH REF: 002

Card 2/2 CC

<u>L 25772-66</u> - EWT(m)/FCC/T ACC NR AP6016380 SOURCE CODE: UR/0048/65/029/010/1876/1880 AUTHOR: Vernov, S. N.; Khristiansen, G. B.; Abrosimov, A. T.; Atrashkevich, V. B.; Belyayeva, I. F.; Kulikov, G. V.; Solov'yeva, V. I.; Fomin, Yu. A.; Khrenov, B. A. ORG: Scientific Research Institute of Nuclear Physics, Moscow State University im. M. V. Lomonosov (Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta) TITLE: Primary superhigh-energy cosmic radiation according to data on extensive atmospheric showers SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 10, 1965, 1876-1880 TOPIC TAGS: cosmic radiation, muon ABSTRACT: Of interest in the investigation of the primary energy spectrum of cosmic rays and their composition is the knowledge of the spectrum of extensive atmospheric showers (e.a.s.) with respect to the total number $N_{\rm h}$ of high energy muons (E $_{\rm h} > 10^{10}$ eV) and the distribution of e.a.s. over the total number of the particles $N_{\rm e}$ for a given $N_{\rm h}$. In this connection the authors analyze the primary energy spectrum of cosmic rays on the basis of experimental data obtained with a special device for investigating e.a.s. recorded with a probability of W≥0.95. This device makes it possible to determine the total number of charged particles in an c.a.s. 2

L 39838-66 E/A

SOURCE CODE: UR/0367/65/002/006/1075/1086

AUTHOR: Vernov, S. N.; Belyayova, I. F.; Vedeneyev, O. V.; Dmitriyev, V. A.; Nechin, Yu. A.; Khristiansen, G. B.

ORG: Institute of Nuclear Physics, Moscow State University (Institut yaderney fiziki Moskovskogo gosudarstvennogo universiteta)

TITIE: Fluctuations of the energy fluxes of the nuclear-active and electron-photon components in extensive air showers / This paper was given at the 14th Annual Conference on Nuclear Spectroscopy, Tbilisi, February 1964/

SOURCE: Yadernaya fizika, v. 2, no. 6, 1965, 1075-1086

TOPIC TAGS: extensive air shower, electron, photon

ABSTRACT: Experimental data are given on the fluctuations of the energy flux of the nuclear-active and electron-photon components in extensive air showers and on the connections of these fluctuations with each other and with fluctuations of the age paramoter s. It is shown that the bulk of these data disagrees with the model described by Nymmik and Shestoperov (Materials on the All-Union Conference, Apatites, 1964). The large role of the parameter s and other characteristics for the correct sotting-up of experiments concerning extensive air-showers are discussed. Orig. art. has: 10 figures and 3 tables. Based on authors Eng. abst. JFRS

SUB CODE: SUBM DATE: 23Apr65 / ORIG REF: 014 / OTH REF: 003

VERNOV, S.M.; KHRISTIANSEN, G.F.; APPECINOV, A.T.; APRABEZICE, V.B.;
BELTAYEVA, I.F.; RULKOV, G.V.; DOLMYTEVA, V.I.; FORIN, Ys.A.;
KHRENOV, B.A.

Ultrahigh-energy primary cosmic radiation according to data on extensive air showers, lav. AN SCER.Gev. Fiz. 29 no. 10:1876-1880

0 '65.

(MIRA 18:10)

1. Nauchno-issledovatel'skiy institut yadornoy finiki Meskovskoge gosudarstvenoogo universiteta im. M.J. Lonconsova.

L 4528-66

ACC NR: AP5024632

error in determining S was estimated to be 0.02 by processing "artificial" showers of known age, calculated by Monte Carlo methods. The data presented were derived from some 300 showers with total numbers of charged particles ranging from 105 to 4 x 106. Histograms are given showing the distribution of showers with respect to N with fixed M, with respect to M with fixed N, with respect to S with fixed N, and with respect to S with fixed N, and with respect to S with fixed N and correlation coefficient of S with M for fixed N ranged between 0.62 and 0.72; the correlation coefficient of S with N for fixed N was - 0.67. Orig. art. has: 10 formulas, 4 figures, and 1 table.

SUB CODE: NP/ SURM DATE: 00/ ORIG REF: 005/ OTH REF: 001

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

L 4528-66 EWT(m)/FCC/T IJP(c)

ACC NR: AP5024632

SOURCE CODE: UR/0048/65/029/009/1676/1681

AUTHOR: Vernov, S.N.; Khristiansen, G.B.; Abrosimov, A.T.; Atrashkevich, V.B.; Belyayeva, I.F.; Vedeneyev, O.V.; Kulikov, G.V.; Fomin, Yu. A.; Nechin, Yu. A.;

Solov'yeva, V.I.; Khrenov, B.A.

ORG: none

TITLE: Investigations of fluctuations in the development of extensive air showers with a fixed total number of charged particles and a fixed total number of muons /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1676-1681

TOPIC TAGS: cosmic ray shower, muon, charged particle, extensive air shower, particle distribution

ABSTRACT: The authors have employed the modernized installation at Moscow State University, described elsewhere (S.N.Vernov et al., Izv. AN SSSR Ser. fiz., 28, 2087, 1964), to investigate the simultaneous distribution of total number N of charged particles, total number M of muons, and age parameter S in extensive air showers. Showers were selected for which the zenith angle of the axis was less than 30°. M was determined from the number of muons recorded by the muon detector and the perpendicular distance of the muon detector from the shower axis with the aid of the known lateral distribution of muons. The relative error in determining M did not exceed 35 %. The

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Extensive air showers induced by ...

S/048/62/026/005/015/022 B102/B104

is determined for mesons with $E > 1 \cdot 10^{10}$ ev. The transverse momenta of the $\pi^{\frac{+}{2}}$ produced are assumed to satisfy the law p_{\perp}^{2} $exp\left[-(p_{\perp}/p_{0})^{2}\right]$ with $p_0 = 1.10^8$ ev. The distribution curves were found to be similar for electron-photon and ordinary showers, the densities at axial distances between 10 and 100 m differ by a factor of ~ 100 ; it is concluded that the muon density in photon-induced e.a.sh. will be $\sim 1\%$ of that in ordinary showers with $N\sim 1\cdot 10^7$ at sea level and distances up to 100 m from the shower axis. An analysis of the relation between the number of recorded showers and that of recorded muons showed that of 126 showers with $4\cdot 10^6 < N \le 2\cdot 10^7$ all those which could have been photon-induced were recorded. This indicates a 75% probability that & < 0.01. There are 2 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo gos. universiteta im. M. V. Lomonosova (Scientific Research Institute of Nuclear Physics of Moscow State University imeni M. V. Lomonosov)

Card 2/2

37551

5/048/62/026/005/015/022 B102/B104

3,2410 (2205,2705,2805)

AUTHORS:

Belyayeva, I. F., Solov'yeva, V. I., Khrenov, B. A., and Khristiansen, G. B.

TITLE:

Extensive air showers induced by high-energy photons

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,

v. 26, no. 5, 1962, 658-660

TEXT: Photon-induced extensive air showers (e.a.sh.) (Nuovo Cimento 17, 625, 1960) must differ from heavy-particle induced e.a.sh. by the number of penetrating particles. The upper limit of the number of muons N_µ in a photon-induced e.a.sh. and the spatial muon distribution are

estimated for $E_{\rm phot}$ = 10¹⁰ ev and N = 10⁷ at sea level. The muons are assumed to be produced in π^{+} decay only, the π^{+} being the result of photonuclear interaction. Muon pair production is ignored.

 $N_{\rm pl}(\geq E) \leqslant 0.8 \cdot 10^{-3} \ E_{\rm o}/E$. The spatial meson distribution at sea level

Card 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

The primary cosmic-ray component ...

S/048/62/026/005/014/022 B102/B104

The primary cosmic-ray component ...

shower particles; the number of muons $N_{\mu} = k_{\mu} E_{0}^{\chi}$; $\Lambda = 200 \text{ g/cm}^{2}$, $B = 30 \text{ g/cm}^{2}$ and $\alpha = 0.8 \pm 0.1$. If the primary energy spectrum has the shape $AE_{0}^{-(\gamma+1)}dE_{0}$, at fixed N the N_{μ} distribution has the shape $1/2 \left(\frac{(z+B)}{2} - \gamma - 1\right) dN_{\mu}$, N_{μ} being the mean free path with respect to inter-

 $1/\nu\left(\frac{7+B}{\lambda}-\gamma-1\right)$ dN_μ , κ being the mean free path with respect to interaction. Comparison between experiment and theory yields $\lambda=(85\pm5)$ g/cm², as an upper limit. For charged muons their energies (E_μ) and numbers (n_π) were measured and calculated for several altitudes H; W is the probability for a charged pion produced at H decays without interacting with an air nucleus. The results indicate that in -3% of all cases nuclear interaction is accompanied by a production of narrow beams of

great numbers of charged pions. There are 8 figures.

Card 3/4

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

The primary cosmic-ray component ...

S/048/62/026/005/014/022 B102/B104

40 m water equivalent. The nuclear-active-particle detectors form a system of 128 ionization chambers (8 m²) shielded by lead and graphite filters. The number of muons produced in charged-pion decay was estimated (the pions were assumed to be formed in gamma-quantum photoeffect on nuclei of air atoms): N(E) < 0E/1.8(1-4)E, < 0.5, < 10⁻³; for E < 10¹⁶ ev and E < 10¹⁰ ev (< 0.5), N< (10¹⁰) < 10³. The number N n of muons in nuclear showers was measured. For showers with N = 7·10⁶ a mean number of 8·10⁴ muons with E > 10¹⁰ ev is to be expected. The spatial muon flux distribution was determined for these two types of showers (< and < 1. In the case of a simple model of air shower production (Suppl. Nuovo Cimento, 2, 649, 1958), an analysis of the experimental data yields N = k < 0 expected. The primary particle, x is the depth of its first interaction, x = ElogE (x - depth of observation), N is the total number of

Card 2/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

37550

3,24/0 (2205,2705,2805)

S/048/62/026/005/014/022 B102/B104

AUTHORS:

Vernov, S. N., Khristiansen, G. B., <u>Belyayeva</u>, I. F., Dmitriyev, V. A., Kulikov, G. V., Nechin, Yu. A.,

Solov'yeva, V. I., and Khrenov, B. A.

TITLE:

The primary cosmic-ray component at superhigh energies and some peculiarities of its interaction with nuclei of air

atoms

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,

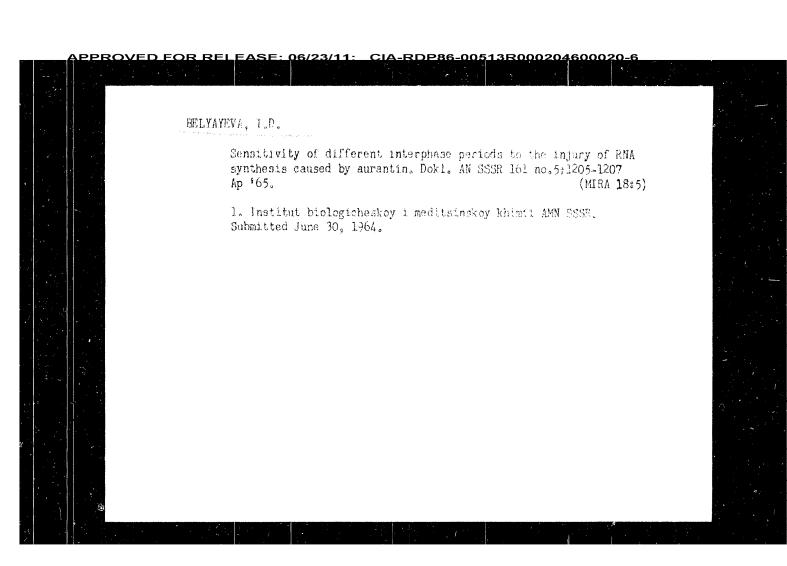
v. 26, no. 5, 1962, 651-657

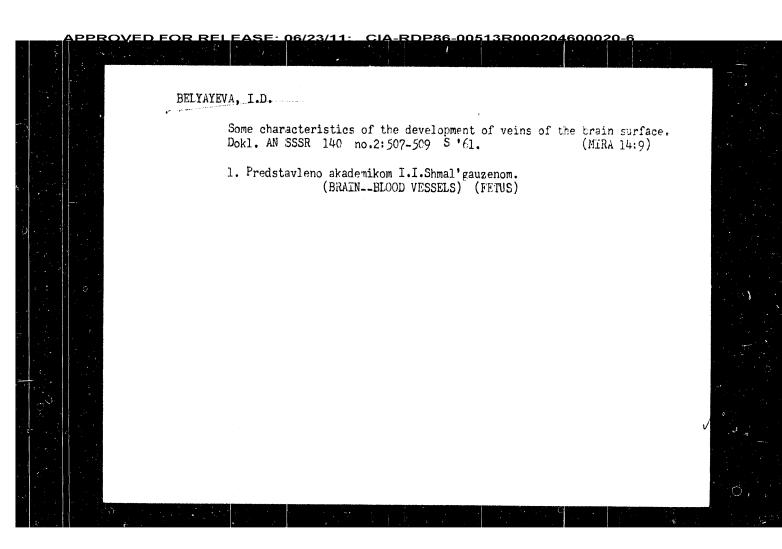
TEXT: The paper is a report on experiments with the Moscow University large apparatus (area $4\cdot10^4$ m²) for comprehensive studies of extensive air showers induced by high-energy cosmic particles. The charged-particle detectors (Geiger counters in hodoscope arrangement) cover an area of 110 m², the muon detectors (2-3 counter layers shielded with lead and iron, in hodoscope arrangement) more than 12 m², 6.3 m² of which are under

Card 1/4

-RDP86-00513R000204600020-6 APASHEV, M.D.; MIKHAYLENKO, V.D.; BELYAYEVA, I.F. Use of a colored grating for the quantitative investigation of schlieren by the Toeppler optical method. Trudy Inst. dvig. no.6: 161-165 '62. (MIRA 16:5 (MIRA 16:5) (Air flow) (Optical measurements)

BELYAYEVA, T.D. Effect of actinomycln on the regeneration of the liver in mice. Biul. eksp. biol. i med. 59 no.6:91-95 Je 165. (MIRA 18:6) 1. Laboratoriya bickhimii muklejmovykh kislot (zav. - prof. V.S. Tongar' Instituta biologicheskoy I medibainakoy kicimii idir. deystaitellnyy chien AMN SSCH prof. V.S. (weknowich) AMN COS. Hogkya.





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L 6467-66 ACCESSION NR: AP5019819

which might appear if the fuel-element cladding is not hermetically sealed, were observed. The intensities of fallout of long-lived radioactive isctopes (total pactivity and Sr⁹⁰) were the same near the reactor as in other control points, and were governed by global fallout conditions. The maximum y-ray dose intensity was registered at distances 400 meters from the reactor chimney axis and amounted to 380 microrad/hr. Even under the worse conditions the limit of the maximum permissible dose (50 mber/yr) was about 1 km from the reactor on the windward side. The actual dose was much less. The authors reason that under the most stringent conditions, the permissible hourly dose intensity must not be exceeded in the guarded safety zone around the reactor, and point out that in the case of the VVR-M reactor the limit of hourly maximum dose intensity extends over distances 3-4 times larger than the limit of the maximum annual dose, and that future reactor designs must take this circumstance into account. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 20Jul64 ENCL:

QO SUB CODE:

NR REF SOV: 005

OTHER: 000

ILW

Card 2/2

NPPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

L 6467-66 EWT(m)/EPF(c)/ETC/EPF(n)-2/EWG(m)
ACCESSION NR: AP5019819

ww/dm ur/0089/65/019/001/0086/0089 621.039.58

AUTHOR: Ramzayev, P. V.; Belvaveva, I. A.; Gus'kova, V. N.; Thatullin, M. S.; Konstantinov, Yu. O.; Nikolayev, S. P.; Oreshina, A. F.

TITLE: Radiation conditions near the VVR-M nuclear reactor

SOURCE: Atomnaya energija, v. 19, no. 1, 1965, 86-89

TOPIC TAGS: argon, atmospheric contamination, radiation dosimetry, radiation hazard, radiation protection, Gamma background, radioactive waste disposal $_{\mathcal{G}}$

ABSTRACT: The article deals with the determination of the concentration of radioactive waste in the atmosphere near research reactors. It is shown first that if
the fuel-element cladding is hermetically sealed and the aerosols are effectively
trapped, the radioactivity in the surrounding air is due for the most part to Ar⁴¹
(disregarding the very slight oxygen activity). The chemical inertness of the
argon prevents its accumulation in the organism, its dangerous effects are due to
its external γ radiation. This, on the other hand, facilitates its monitoring and
prevention of harm to the population. The authors have measured the radioactive
contamination of the air around the VVR-M reactor operating at 10 MW power, over
an area of a 20-km radius around the reactor. No radioactive fission products,

Card 1/2

0901 1441

E USSR/Virology. Racteria Viruses (Phage). Abs Jour: Ref Zhur-Diol., No 17, 1958, 76423. tion of the medium. Decrease of the crystals did not take place during use of BPM for obtaining phage with the content of the amino nitrogen not more than 50-60 mg/, or the Cottinger broth with anino nitrogen to 170 mg/s. With the utilization of a lytic broth, the alkalizing should produce NaOH, which prevents the decrease of crystals independently from the water used and form certain fluctuations in the content of amino nitrogen (21-61 mg%). : 2/2 Card 1

E USSR/Virology. Dacteria Viruses (Phage). Abs Jour: Ref Zhur-Biol., No 17, 1958, 76423. Author : Belyayeva, I.A.; Mukhina, Z.S. : The Formation of Crystals in Preparations of Chloera Inst Title Bacteriophage. Orig Pub: Tr. Khar'kovsk. n.-i. in-ta vaktsii i syvorotok, 1957, 24, 251-259. Abstract: In the phagocytolysis of cholera vibrio during storage, the appearance of ammoniac-magnesium crystals of phosphoric acid were observed 2-3 weeks later after preparation. It was shown that the formation of these crystals depends on the content of aninc nitrogen in the nutrient medium, and on the alkali used for the prepara-: 1/2 Card

Country: USSR

Category: Virology Bacterial Varuses (Phages)

Abs Jour: Ref Zhur-Biol., No 23, 1958, No 103509

Author : Belyayeva, I. A.; Mukhina, Z. S.

Inst

Title : Study of the Activity and Stability of the Commercial Series of Cholera Bacteriophage

Orig Pub: Sb. Bakteriofagiya. Tbilisi, Gruznedgiz, 1957,

333-336.

Abstract: Study of 48 series of cholera phage prepared in

different years showed that keeping them under refrigerator conditions for 18-23-25 months did not notably change their titer, range of lytic action or rapidity of the occurrence of the secondary growth. E

Ya. I. Rautenshteyn.

: 1/1 Card

· BELYAYEVA, IA.

USSR/Virology - Bacterial Virus (Phages)

D-1

Abs Jour

: Ref Zhur - Biologiya, No 7, 10 April 1957, 26072

Author

: Belyayeva, I.A.

Inst Title : Kharkov Research Institute for Vaccines and Serums

: The Relation of Lytic Activity in Dysenteric Bacterio-Phagolysates to Agar Agar Concentration in a Nutritive

Medium.

Orig Pub

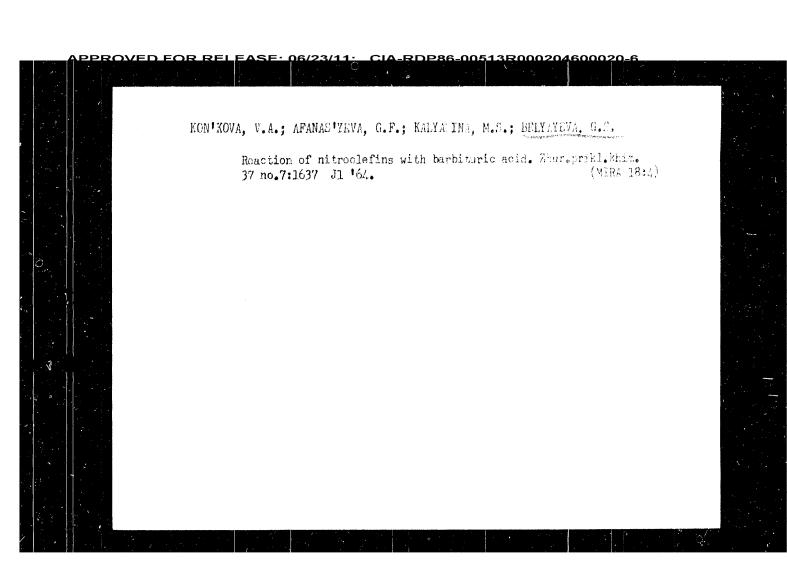
: Sb. tr. Kharovsk. n.-i. in-ta vaktsin i syvorotok, 1955,

22, 83-87

Abst

: Studies of titers (following Appelmann) were made on polyvalent dysenteric bacteriophage in media with agar concentrations of 0.1 - 2.5%. Phage titers increased from 10-8 - 10-9 to 10-9 - 10-10 as agar concentration was increased to 0.3 - 1.2%. As concentration was increased further, titers fell again to 10-3 - 10-8.5.

Card 1/1



MINTS, R.S. (Moskva); BELYAYEVA, G.F. (Moskva); MALKOV, Yu.S. (Moskva) Investigating the high-temperature strength of alloys in the system Ni₃Al - Ni₃Nb. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.43151-153 Jl-Ag '63. (MIRA 16:10) (MIRA 16:10) APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

Corrosiveness of fuels...

29042 \$/081/61/000/018/022/027 B101/B147

This is explained by the considerably higher corrosiveness of low-molecular mercaptans contained in the $60-130^{\circ}\text{C}$ fraction of T-2 fuel. The principal cause of the formation of gelatinous deposits on caumium-plated parts in the fuels concerned is the moistening of the latter in the presence of mercaptan sulfur. On an increase of the content of the latter to 0.01% in the fuel, the amount of deposits increases significantly. Chromate passivation of cadmium-plated parts raises their resistance to the corrosive action of mercaptans, and altogether prevents deposits from forming in TS-1 and T-2 fuels containing 0.01% of mercaptan sulfur. As cadmium-plated parts of fuel pumps are most responsive to the action of mercaptans, the content of mercaptan sulfur in TS-1 and T-2 fuels should be 0.01%. [Abstracter's note: Complete translation.]

Card 2/2

2001-2

29042 \$/081/61/000/018/022/027 B101/B147

11.0132

AUTHORS:

Bespolov, I. Ye., Pletneva, O. V., Kolotushkina, Ye. V., Belyayeva, G. P., Malysheva, M. S.

TITLE:

Corrosiveness of fuels produced from sulfurous petroleums

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 18, 1961, 439, abstract 18M187 (Sb. "Khimiya seraorgan, soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh", M., AN SSSR, 1959, 276 - 283)

TEXT: The corrosiveness of the fuels TC-1 (TS-1) and T-2 (T-2) was examined. They contained 0.002 - 0.05% of mercaptan sulfur. It was found that the corrosion of copper and bronze Bb-24 (VB-24) in fuels obtained from sulfurous petroleums is chiefly due to the presence of mercaptans. Fuels containing no mercaptans hardly corrode these metals. The presence of elementary sulfur of up to 0.002% in mercaptan-containing TS-1 fuel, while not increasing the corrosiveness of the latter toward VB-24 bronze, increases it markedly toward copper. T-2 fuel, which has a wide fractional composition, corrodes copper more strongly than does TS-1 fuel.

Card 1/2

-RDP86-00513R000204600020 P. But AYEUR 3) Purposit: This book is intended for chemists, chemical empiasers, and technicisms specialising in the chemistry of principles.

Specialising the book is collection of pepers presented at the Third Scientific Season on the Chemistry of principles. Specialises the proposed formation distinct the technical specialists of commission of the technical specialisms. The technical specialism of the technical specialisms of the technical specialisms and the technical specialisms. The technical specialisms and the technical specialisms and personals of regards compared as the technical specialisms of organic multimensurable in personals and the Toronton compounds by thermal catalysis of organic multimensurable specialisms and personals specialisms of organic multimensurable specialisms. The technical specialisms and the Toronton specialisms and personals and the Toronton specialisms are all the Toronton specialisms. The technical specialism is then are sectioned, here are sectioned, here are 135 references of which 179 are Soriet, Mitorial Board: S.D. Obolantery (Rep. Ed.) Decor of Chaertal Streets; d.D. del barra, Dector of Chaertal Stat. B. Chartter, Dector of Tachitical distance; 7.1, Party Considers of Technical Streets; and Y.E. Exchaerty distance; of Chaertal Streets; 26, of Publishing Nowe: 1.1, Ermony Tech. Ed.: T.P. Polanter ť, PART IV. CORRORITE ACTIVITY AND TAR FURNATION OF SULFOR PRODUCTS Distry sersorgualchealth soyedisemiy, obsernantalthay w serfyshi i saffyshi i saffyshi i fastrill i fastrill i mennill i fastrill i saffyshi i fastrill i saffyshi changa i saffyshi changa i saffyshi saffyshi changa i saffyshi saffyshi chantan i saffyshi saffyshi i Nesov, itaho As SSSS, 1959. Nf6 P. B.,000 copies princed. Effects ally lastron. 804/20TS SOY/2075 Chertkey, Is.B., V.H. Zralov, V.M. Sichagio, Organic Saliur Compounds Pasts as Inhibitors in the Correston of Copper and Its Alloys Mechiov, R.G., V.M. Gavryakhin. Methods of Controlling the West of Engine Dus to Corrosion Cunsed by Use of Diesel Pasis Mith a Righ Palfur Content Zakharo-kin, L.D., S.M. Vol'fson. Corrosive Properties of Smifur-contenting Petroleus Bospolov, 1.15., o.V. Rietzeva, Te.V. Kolovaskina, G.P. Beltygeva, M.S. Kalyndeva. Corrosive Effect of Pasla derived From Galifor-containing Petrolema PEASE I BOOK EXPLOITMENTS Chemistry of Sulphur Organic Compounds (Cont.) Akademiya namk SSSR. Deshkirskiy fillel, Ufa Prom the Editorial Staff PARLE OF CONTENTS Introduction Georg 200 Carrel 8/10

ACCESSION NR: AP4020517

ASSOCIATION: Laboratoriya polimerizatsionny*kh proteessov Armniikhimproyekta
(Laboratory of Polymerization Processes, Armniikhimproyekta)

SURMITTED: 09Mar63

DATE ACQ: 31Mar64

ENGL: 00

SUB CODE: CH

NO REF SOV: 001

OTHER: 004

ACCESSION NR: AP4020517

s/0171/64/017/001/0103/0106

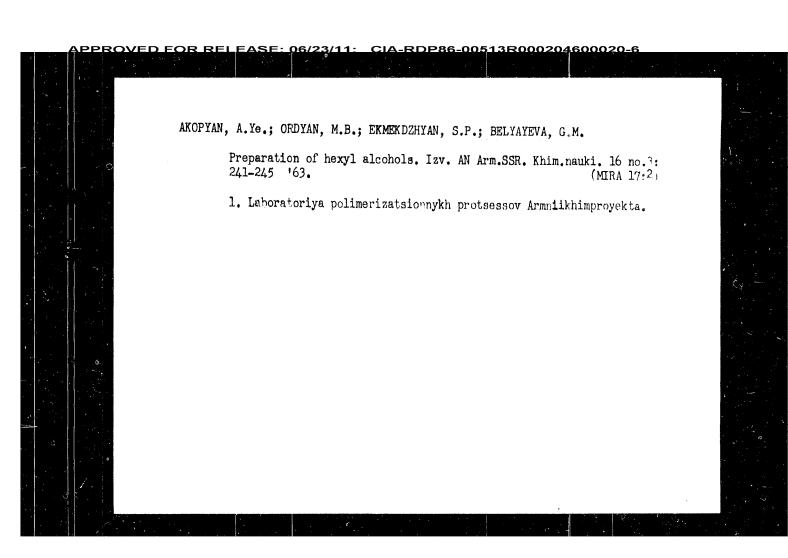
AUTHOR: Akopyan, A. Ye; Ordyan, M. B.; Ekmekdzhyan, S. P.; Belyazva, G. M.

TITLE: Nitration of polyvinyl alcohol

SOURCE: AN ArmSSR. Izv. Khimicheskiye nauki, v. 17, no.1, 1964, 103-106

TOPIC TAGS: nitration, polyvinyl alcohol, polymerization degree, sulfuric acid, polyvinyl nitrate, nitric acid

ABSTRACT: The nitration of polyvinyl alcohol was studied for the purpose of developing optimum yield and safety conditions. Two specimens of polyvinyl alcohol were used with molecular weights of 925 and 1275 respectively. The presence of sulfuric acid (1-10%) in the nitrating compositions suppresses oxidation and permits an increased yield. The optimum conditions of nitration which were determined are: a) ratio of polyvinyl alcohol and nitrating compositions is 1:25; b) duration of nitration is 60 minutes; c) processing temperature is from -5 to 10C; and d) ratio of reaction mixture and water for precipitation of polyvinyl nitrate is 1:0.5. Orig. art. has: 3 tables



L 12865-63 EPF(e)/EWT(m)/RDS Pr=4 RM/WW. ACCESSION RUL AP3002635 S/01

S/0171/63/016/003/0241/0245 LO

AUTHOR: Akupyan, A. Ye.; Ordyan, M. B.; Ekmekdahyan, S. P.; Belyayeva, G. M.

TITLE: Production of hexyl alcohols

SOURCE: AN ArmSSR. Izv. Khimicheskiye nauki, v. 16, no. 3, 1963, 241-245

TOPIC TAGS: chlorohexadienol hydrogenation, Ransy nickel, normal alcohol, secondary hexyl alcohol, normal hexanol

ABSTRACT: The hydrogenation of chlorohexadienol in the presence of Raney nickel to form normal and secondary hexyl alcohols was investigated with respect to effects of pressure (2-10 atm.), temperature (25-500), and hydrogenation medium (hexanol, methanol). Optimum conditions for obtaining normal hexanol in almost 94% yield were: use of 1% by weight of product of Raney nickel at 250 and 10 atm. in hexanol with 1: 1 ratio of solvent to chlorohexadienol.

ASSOCIATION: Laboratoriya polimerizatsionny*kh protsessov Armniikhimproyekta (Laboratory of Polymerization Processes, Armniikhimproyekt)

SUBMITTED: 09Mar63 SUB CODE: 00

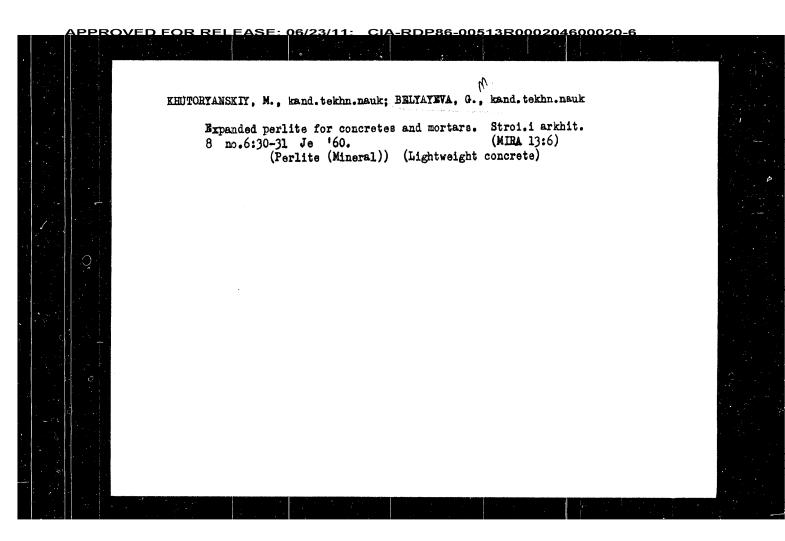
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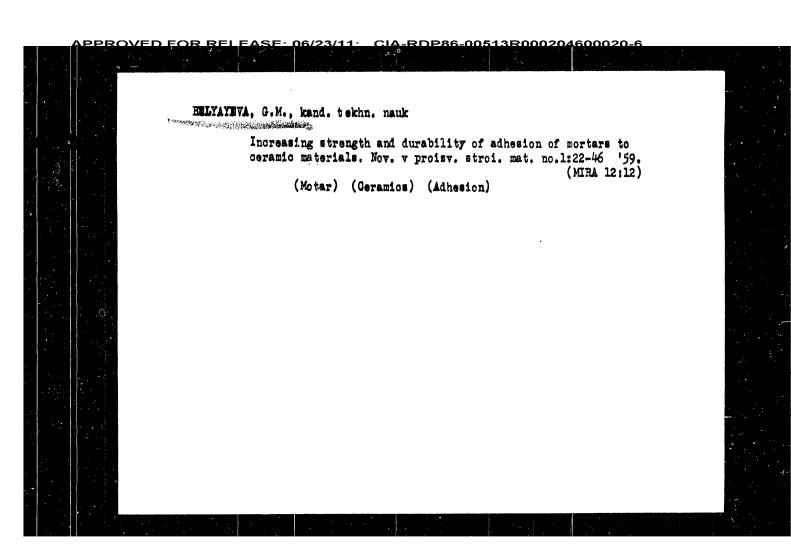
BORISENOK, I.T.; GENEROZOV, M.N.; YEREMEYEV, N.V.; KARAMYSHKIN, V.V.; KUZOVKOV, N.T.; BORISENOK, I.T.; KULIKOVSKAYA, N.V.; SAVINOV, G.I., kand.fiz.-mat. nauk, dots. [deceased]; PIROGOV, I.Z.; Prinimali uchastiye: BALAYEVA, I.A.; BALAKIN, B.M.; BELYAYEVA, G.M.; BELYAKOV, V.I.; VELERSHTEYN, R.A.; ZHARKOV, G.M.; KOHOLEVA, V.Ye.; LITVIN-SEDOY, M.Z.; POPOV, A.I.; PRIVALOV, V.A.; STUKALOVA, L.M.; CHISTYAKOV, A.I.; SAVVIN, A.B., red.; CHISTYAKOVA, K.S., tekhn. red.

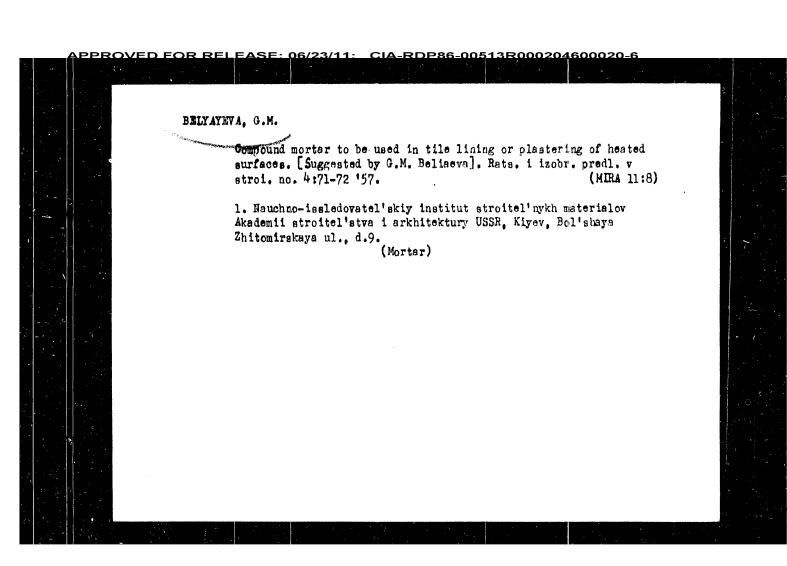
[Laboratory work in theoretical and applied mechanics] Laboratornyi praktikum po obshchei i prikladnoi mekhanike. Moskva, Izd-vo mosk. univ. 1963. 233 p. (NIRA 16:12)

l. Kafedra prikladnoy mekhaniki Moskovskogo gosudarstvennogo universiteta (for Balayeva, Balakin, Belyayeva, Belyakov, Velershteyn, Zharkov, Koroleva, Litvin-Sedoy, Popov, Privalov, Stukalova, Chistyakov).

(Mechanics-Laboratory manuals)







PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

BELYAYEVA, G.M.

SOV/124-58-4-4528

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 4, p 122 (USSR)

AUTHOR: Belyayeva, G. M.

TITLE: Application of the Perturbation Theory to the Problem of the

Vibrations of a Beam (Prilozheniye teorii vozmushcheniy k

zadache o kolebaniyakh balki)

PERIODICAL: Vestn. Mosk. un-ta Ser. matem., mekhan., astron., fiz.,

khimii, 1957, Nr l, pp 11-21

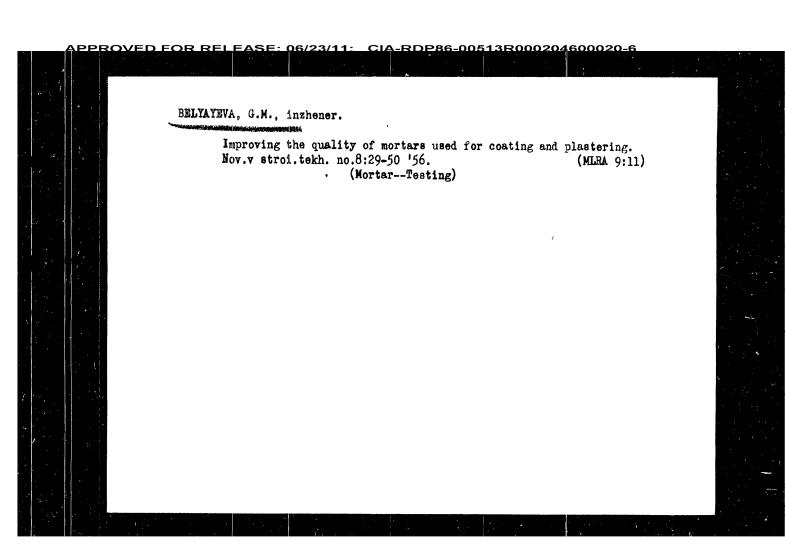
ABSTRACT: The problem of the transverse vibrations of a weightless

beam with concentrated masses is analyzed by the perturbation-theory method. A beam with equidistant identical masses is taken as fundamental. The rapid convergence of the method

is demonstrated.

1. Beams--Vibration 2. Perturbation V. L. Biderman

theory--Applications



RELYAYEVA, C.M. inzhener; MINTSKOVSKIY, M.Sh., kandidat tekhnicheskikh nauk, fedaktor; KLINDUKH, A.M., kandidat tekhnicheskikh nauk, redaktor; ANDRUSHCHEEKO, V., redaktor; BMRENEWS, P., tekhnicheskiy redaktor

[Provisional specifications for the use of ceramic facings on the facades of buildings] Vremennye ukazanita po primeneniu keramicheskoi oblitsovki dlia fasadov zdanii. Kiev, Gos. izd-vo lit-ry po stroit.

i arkhit. USSR, 1956. b6 p. (MLRA 10:5)

1. Ukraine. Gosudarstvennyy komitet po delam stroitel'stva i arkhitektury.

(Geramics) (Facades)

BELYAYEVA, G. M.:

"Applications of the theiry of disturbance to the problems of the oscillations of a beam." Moscow State U imene M. V. Lamonosov. Moscow, 1956. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN PHYSICOMATHEMATICAL SCIENCES)

Knizhnava letopis!
No 35, 1956. Moscom

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Belyaeva, G. M., and Kuzovkov, N. T. (Moscow) AUTHORS:

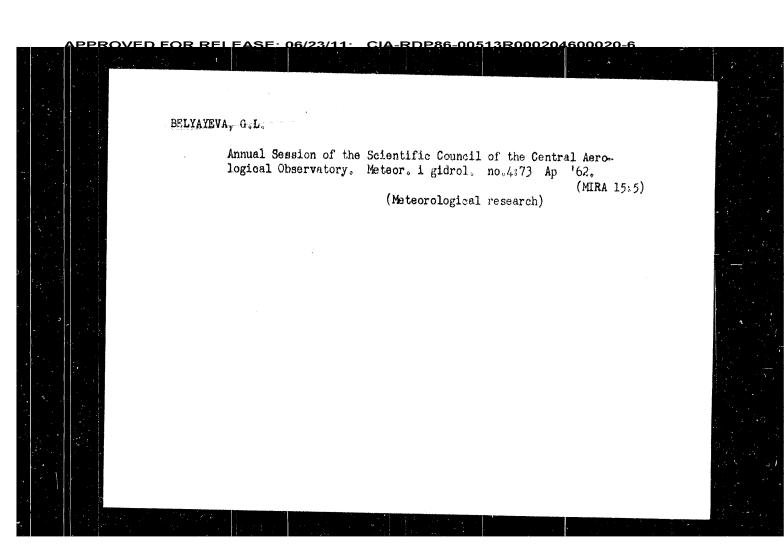
TITLE: Transients in a Linear System Having a Pure Delay

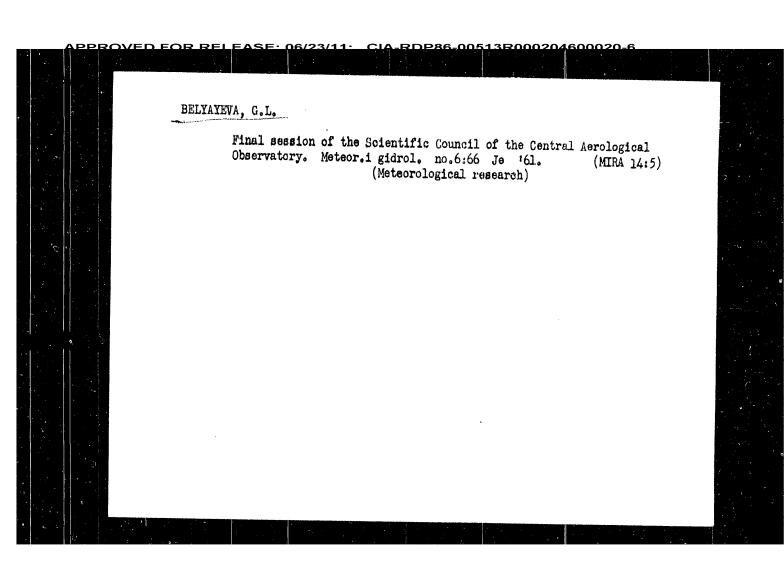
Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, PERIODICAL:

Nr 6, pp 127-133 (USSR) ABSTRACT: Kasters and Moore's method of logarithmic frequency

characteristics is used to find the roots of the transcendental equation describing the system; the paper is an extension of the one by N. T. Kuzovkov (Nr 5, 1959). Some examples of transients are given to illustrate the method. There are 7 figures and 6 Soviet references.

SUBMITTED: July 23, 1959





APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

General session of the ...

S/050/61/000/006/001/001 D231/D304

velopment of devices and the perfecting of methods of atmospheric probing by rockets; theoretical and experimental work in the field of active cloud and fog reactions; routine scientific work in the field of aerology. Discussion resulted from papers by N.Z. Pinus — The study of turbulence and wind structure in the upper atmosphere; V.V. Kostarev — The possibility of using radiolocational methods for determining the boundaries and water-content of clouds; S.M. Shmeter — The study of the physico-meteorological peculiarities of cumulonimbus clouds and turbulence in clouds of the upper troposphere; I.A. Klemin — The seasonal movement of wind in the stratosphere; P.F. Zaychikov — The investigation of radiation errors in the A-22 and RKZ radioprobes.

Card 2/2

S/050/61/000/006/001/001 D231/D304

AUTHOR:

Belyayeva, G.L.

TITLE:

General session of the scientific council of the

central aerological observatory

PERIODICAL: Meteorologiya i gidrologiya, no. 6, 1961, 66

TEXT: The session of the Scientific Council took place from February 8 through 10, 1961, and was devoted to the results of work performed during 1960. 14 papers on various problems of atmospheric physics were heard at the session. Representatives of 18 organizations of the Glavmoye upravleniye gidrometeorologicheskoy sluzhby (Central Board of the Hydrometeorological Service) and other departments took part in the work of the session. The papers were devoted to: The study of turbulence at altitudes of 6 - 10 km; the physics of clouds of the upper layer; radiolocational methods of investigating clouds and movements in the troposphere; the de-

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ACC NR: AP6036115

was determined as the average of three results. In all cases, the surface of the samples was covered with a film. The solidified salt melt was anlyzed for its content of Ni, Cr, Al, Mn, and Fe. The analytical results are shown in a table. Based on the experimental data, the following conclusions were drawn: 1) in the temperature interval $600-800^{\circ}$ there is formed on the surface of nickel chromium alloys a film composed of the solid products of corrosion; this film is of the spinel type and for Alloy EI-559A has a structure close to Ni(Fe_xCr_y)₂0_{\mu}, and for Alloy EI-437B close to NiCr₂0_{\mu}; 2) at 600° , the alloys are covered with a dense single zone oxide film and the corrosion is controlled by the diffusion of the reagents through this film, in accordance with a parabolic law. The protective properties of this film are greater for Alloy EI-537B than for Alloy EI-559A; 3) at a temperature of about 800° , the corrosion rates of the alloys draw close together, as a result of the similar structure and composition of the oxide films under these conditions. Orig. art. has:

SUB CODE: 07, 11/ SUEM DATE: 09Nov65/ ORIG REF: 006/ OTH REF: 001

Card 2/2

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

ACC NR: AP6036115

SOURCE CODE: UR/0365/66/002/006/0700/0704

AUTHOR: Ozeryanaya, I. N.; Manukhina, T. I.; Belyayeva, G. I.; Burakova, E. A.; Smirnov, M. V.

ORG: Academy of Sciences SSSR, Ural Branch, Institute for Electrochemistry (Akademiya nauk SSSR, Ural'skiy filial, Institut elektrokhimii)

TITIE: Behavior of chromium nickel alloys in carbonate melts

SOURCE: Zashchita metallov, v. 2, no. 6, 1966, 700-704

TOPIC TAGS: chromium containing alloy, nickel containing alloy, corrosion rate, lithium compound, sodium compound

ABSTRACT: The experiments were carried out in a low melting binary eutectic mixture of lithium and sodium carbonates (melting point 497°). To suppress thermal decomposition and possible hydrolysis of the carbonates, the salts were melted in an atmosphere of carbon dioxide gas. The alloys investigated, EI-559A and EI-437B, are solid solutions in nickel of the following elements: EI-559A-18% Cr; 23% Fe; 3.5% Al; solid solutions in nickel of the following elements: EI-559A-18% Cr; 23% Fe; 3.5% Al; other elements about 1%: EI-437B-22% Cr; 4% Fe; 2.5% Ti; about 1% Al. Samples of the other elements about 1%: EI-437B-22% Cr; 4% Fe; 2.5% Ti; about 1% Al. Samples of the alloys, in the form of plates with a polished surface area of 8 cm², were placed in an alloys, in the form of plates with a polished surface area of 8 cm², were placed in an alloys, in the form of plates with a polished surface area of 8 cm², were placed in an alloys in the form of plates with a polished surface area of 8 cm², were washed of alundum crucible with the melt. After the experiment, the samples were washed of traces of salts in distilled water, and dried to constant weight. The weight increase

Card 1/2

UDC: 620.193.43

ACC NR: AT7005248 AUTHOR: Belyayeva, G. I.; Anfinogenov, A. I; Solomatin, V. Ye; Ilyushchenko, N. G. SOURCE CODE: UR/2631/66/000/008/0079/0084 ORG: none TITLE: On the structure and properties of an electrolytic aluminum coating on molybdenum SOURCE: AN SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy, no. 8, 1966. SOURCE; AN DEEK. Ural'skiy fillal. Institut elektrokhimii. Trudy, no. 0, 1900. Elektrokhimiya rasplaylennykh solevykh i tverdykh elektrolitov; fiziko-khimicheskiye svoystva elektrolitov i elektrodnyye protsessy (Electrochemistry of fised salts and electrolytes; physicochemical properties of electrolytes and electrode prosolid electrolytes; physicochemical properties of electrolytes and electrode pro-TOPIC TAGS: nutal platting, molybdenum, metal coating ABSTRACT: Aluminum coatings deposited on molybdenum by electrolyzing a fused elec-ABSTRACT: Aluminum coatings deposited on molybdenum by electrolyzing a fused electrolyze of the composition (wt. \$\%) BaCl₂ 73, NaF 11.5, AlF₃ 15.5 were studied by molybdenum cathode, and by determining the high-temperature strength and oxidation electrolysis conditions (current density and time). Electrolytic saturation of the molybdenum surface with aluminum was found to lead to the formation of two- and threemolybdenum surface with aluminum was found to lead to the formation of two- and threelayer coatings, depending upon the electrolysis conditions. To protect molybdenum from high-temperature oxidation, an aluminum coating of the composition Al, MoAl12,

ACC NR: AR6035432 - 0.15 a/dm². Up to thirty minutes are required to produce a coating of 50 μ thickness. [Translation of abstract] SUB CODE: 13, 07

ED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

ACC NR. AR6035132

SOURCE CODE: UR/0275/66/000/008/3064/3064

AUTHOR: Belyayeva, G. I.; Anfinogenov, A. I.; Solomatin, V. Ye, Ilyushchenko, N. G.

TITLE: Structure and properties of an electrolytic aluminum coating on molybdenum

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 81410

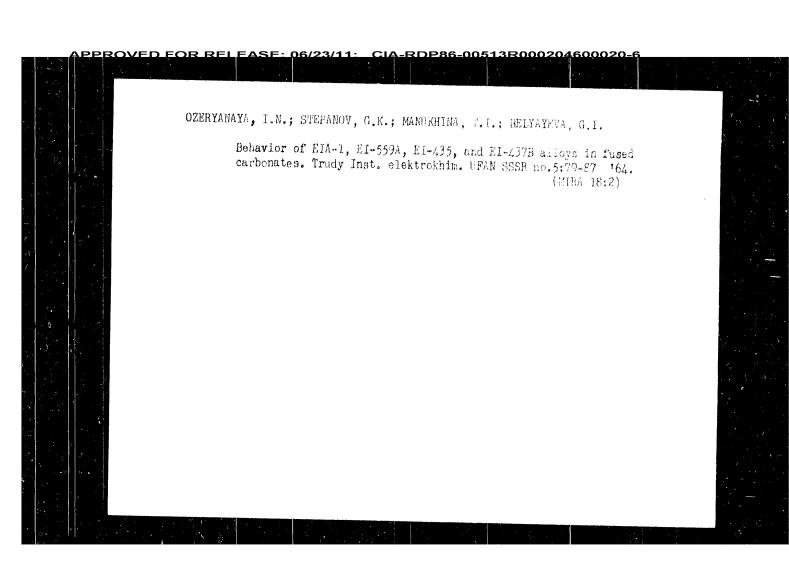
REF SOURCE: Tr. In-ta elektrokhimii. Ural'skiy fil. AN SSSR, vyp. 8, 1966, 79-84

TOPIC TAGS: molybdenum, electrolytic deposition, aluminum plating, metal coating, surface hardness

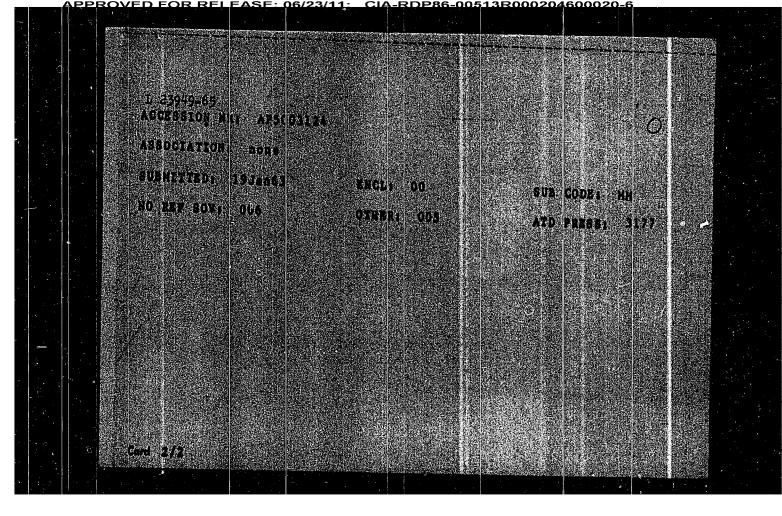
ABSTRACT: The authors present results of investigations of the structure and properties of aluminum coatings on molybdenum, produced by electrolysis of molten salts. For the alitiration of the molybdenmum (sintered rod), an electrolyte was used with composition (% by weight) BaCl₂ 73, NaF ll.5, AlF₃ 15.5. The surface of the sample was polished before the alitiration. The structure and the composition of the obtained coating were investigated metallographically and by x ray structure methods. The microhardness distribution over the depth of the coating was measured with a PMT-5 instrument with a 20 gram load. The tests for heat endurance were made at 1200° in air. It is shown that the electrolytic saturation of the molybdenum surface with aluminum leads to formation of two- and three-layer coatings, depending on the electrolysis conditions; to protect the molybdenum against the high-temperature oxidation, aluminum coatings with compositions Al, MoAl₁₂, and Mo₆Al₈ are recommended; a coating of a given composition can be obtained at a temperature of 900°, current density 0.1

Card 1/2

UDC: 621.357.7: 669.718



ANFINOGENOV, A.I.; BELYAYEVA, G.I.; SMIRNOV, M.V.; ILYUSHCHENKO, N.G. Structure and phase composition of beryllium criting on copper obtained by the electrolysis of fused salts. Trudy Inst. elektrokhim. UFAN SSSR no. 4:55-66 '63. (MIRA 17:6)



PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204600020-6

ACCESSION NR: AT4008733

in Figs. 1, 2, 3 and 4 in the Enclosure indicate that cathode deposition of Be on Cu is accompanied by the formation of deposits consisting of one or more phases. Structure of the deposits is determined by current density, temperature and duration of the electrolytic process. It was also demonstrated that such conditions of the process promote the most rapid formation and accumulation of the β -phase. Microstructure of the BeCu coating is shown on several microphotographs for the α , β and β -phases. G. V. Burov, staff member of the Institute, performed the structural x-ray analysis. G. V. Chentsovaya and L. P. Tomilovaya, other members of the Institute, performed the spectral analysis. (Irig. art. has: 2 tables, 4 graphs, 7 illustrations.

ASSOCIATION: Institut Elektrokhimii, Ural'skiy filial AN SSSR (Institute of Electrochemistry, Ural branch AN SSSR)

SUBMITTED: 00

DATE ACQ: 25Jan64

ENCL: 06

SUB CODE: ML, MA

NO REF SOV: 011

OTHER: 002

Cord

2/02